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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHANNAVAJALA, LAKSHMI SARADA

ART UNIT

PAPER NUMBER

1615

DATE MAILED: 05/20/2002

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/509,315

Applicant(s)

DECOSTER ET AL.

Examiner

Lakshmi S. Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-21 and 23-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-21 and 23-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt of amendment C, dated 2-27-02 is acknowledged.

The following rejection of record has been maintained:

Claim Rejections - 35 USC § 102

1. Claims 17, 18, 23-30, 32 and 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,529,586 to De Marco et al ('586).

'586 discloses hair conditioning composition comprising an amino functional silicone polymer in an aqueous emulsion such as amidomethicone, a cationic surfactant and a cationic polymer, for increasing the combability of the hair and improving the durability of the conditioning effect (see abstract). The amino silicone polymer of '586 reads on the instant silicone. See the formula and the description of the variables x and y, in col. 2. '586 teach the amounts of cationic polymers, cationic surfactant and amino silicone polymer, which fall within the range of amounts claimed in the instant invention (col. 2, lines 28-43 col. 6, lines 25-45). '586 also disclose cationic polymers such as quaternium-40, quaternized polyvinyl pyridine, quaternized polyethelenimine & quaternium-19 (col. 3-5). The later is a polymer of hydroxyethyl cellulose reacted with epichlorohydrin and then quaternized with trimethylamine, sold under the name Polymer JR-400, which is also described in the instant specification page 15, lines 16-24. The cationic surfactants taught by '586 read on the instant washing base. '586 fail to explicitly state pH of the composition. However, absent showing evidence on the contrary, the pH of the hair conditioning composition of '586 is within the claimed range of pH 3 to 10.

Claim Rejections - 35 USC § 103

2. Claims 17-21, 23-30 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over 4,529,586 ('586).

'586 fails to teach the instant pH of 3 to 10, modified guar gums and the claimed amounts of surfactants. However, '586 teaches that the cationic surfactants in an amount effective for increasing the combability of the hair and durability of the conditioning effect. Accordingly, it would have been within the scope for a skilled artisan to optimize the amount of cationic surfactant in the composition of '586 to achieve the art recognized effect. With respect to pH, as explained above, absent showing evidence on the contrary, the composition of '586 has a pH of 3 to 10. Further, adjusting the pH of a hair conditioning composition close to that tolerated by hair and scalp would have been within the scope of a skilled artisan because, a skilled artisan would expect the composition to be effective in conditioning the hair as well as not exert an undesirable effect (harmful effect) on the scalp and hair, with which it is contact. "586 teaches quaternized cellulose compounds (quaternium-19) and not exactly modified guar gums of the instant claims. However, it would have been obvious for a skilled artisan from the teachings of '586 that any quaternized cellulose derivatives would have had the same effect as the cationic quaternium 19 because of their similar cationic properties and because '586 teaches that cationic polymer primes the hydrophilic surface of the hair to make it less hydrophilic and then assists in the deposition of the hydrophobic silicone on the hair.

3. Claims 17-21 and 23-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over 4,529,586 ('586) in view of WO 94/06403 to Reich et al (WO).

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'586 fail to teach the instant cyclopolymers.

WO teaches hair-conditioning shampoos containing cationic polymer, anionic surfactant, hair conditioning amino functional silicone polymer and a dispersing agent. WO discloses the same cationic polymer of the instant claim 31 i.e., a copolymer of acrylamide and dialkyldiallylammonium salt and in the same amounts (abstract, pages 3-4). Therefore, it would have been obvious for a skilled artisan at the time of the instant invention to use the copolymer of acrylamide and dialkyldiallylammonium salt (of WO), as a cationic polymer, in the hair conditioning composition of '586 because WO suggests that the copolymer imparts better hair conditioning benefits to hair compositions containing conditioning agents and also exhibits compatibility with surfactants present in the composition. Further, WO also teaches dispersing agents such as quaternized derivatives of polysaccharides, including hydroxyethyl cellulose, guar gums cationic guar gum or Polymer JR (page 10). WO does not particularly teach guar gum modified by 2,3,-epoxytrimethylammonium salt. However, '586 teach quaternizing cellulose with trimethylamines. Accordingly, it would have been obvious for a skilled artisan at the time of the instant invention to add the quaternized guar gum of WO, in particular a modified with trimethylamine, in the hair product of '586 because WO teaches that the quaternized guar gum acts as a dispersing agent and improves the stability of the emulsion or suspension.

Response to Arguments

Applicant's arguments filed 2-27-02 have been fully considered but they are not persuasive.

Rejection under 35 USC 102- De Marco:

Applicants argue that instant claims are directed to a detergent and a conditioning composition comprising a washing base and a conditioning system, in a cosmetically acceptable medium, whereas, De Marco teaches only a conditioning medium. Applicants argue that the teachings of De Marco are distinct from the instant composition comprising a detergent and a conditioning medium because, De Marco teaches that shampooing can take place before and after treatment with the conditioner and thus does not require a detergent. However, this argument is not persuasive because the term 'detergent' is in the preamble which carries no patentable distinction. Further, instant claims do not specifically recite any detergent and only recites a washing base an amino silicone. Further, instant claims recite "washing base" very broadly. Absent any specific property or chemical structure that distinguishes the instant washing base from that of prior art, even water present in the composition of De Marco reads on the instant washing base. Further, applicants argue that there is no teaching in De Marco that the cationic emulsifiers act as washing base and instead the low concentrations of cationic emulsifiers only help emulsify the silicone polymers, reduce static tension, prime the hair surface and promote the deposition of the conditioning silicone from the emulsion, but not act as a washing base. However, instant claims do not recite any amounts of washing base so as to distinguish it from the amounts of emulsifiers of De Marco. Further, instant claim states that washing base comprises one or more surfactants. Accordingly, whether or not the prior art

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recognizes it for the claimed purpose, prior art teaches instant composition components claimed i.e., silicone polymers and surfactants. Accordingly, the property of acting as a washing base is inherent to the composition of De Marco.

Rejection under 103 – De Marco alone or De Marco in view of Reich:

Applicants argue that De Marco fails to teach or suggest all the limitations of the presently claimed invention and that there is no teaching or suggestion to modify the reference to include a washing base and further argues that in fact the teachings of De Marco would lead on a skilled artisan away from the instant invention. However, these arguments are not persuasive because De Marco (as explained above) clearly teaches the polymer and surfactant of the instant claims. While instant claims refer to the surfactant as a washing base, De Marco does not call it washing base and teaches it for conditioning effect. De Marco teaches that the optimum conditioning effect imparted by the surfactant is a function of its concentration. While applicants recite washing base, they do not show any criticality of the amounts of the surfactant (washing base) required for the instant composition. In particular, from the comparative example on pages 31-33, the cationic surfactant is only 0.2% and still the composition imparts good hair conditioning properties, which are also taught by De Marco. Accordingly, it is the examiner's position that optimizing the amount of cationic surfactant in the composition would have been obvious for one of an ordinary skill in the art so as to achieve optimum conditioning effect.

Further, applicants argue that Reich fails to teach a conditioning system comprising a cationic polymer and amine comprising silicone chosen from polysiloxanes of formula I and formula II and that there is no teaching or suggestion to motivate a skilled artisan to combine the

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references to arrive at the instant invention. Applicants arguments have been considered but not found persuasive because Reich clearly teaches a hair conditioning shampoo which is useful to clean human hair while simultaneously conditioning it so as to make more manageable i.e., a two-in-one formulation. Reich teaches that incorporating the cationic polymers as conditioning agents in a shampoo provide enhanced hair conditioning benefits than the conventional two-in-one compositions and that the amount of anionic surfactant in the shampoo generally varies from 5% to 40% by weight, which acts as a detergent (page 5). Reich further teaches that addition of aminosilicones to the shampoo and conditioner further enhances the conditioning effect.

Therefore, the motivation to use the conditioning composition of De Marco together with a cleansing shampoo comes from the teachings of Reich that conditioning the hair while cleaning is useful and enables more manageability to hair. Further, optimizing the amounts of surfactants between 5 to 40% by weight would have been obvious for a skilled artisan because Reich suggests that anionic surfactants are conventionally used in the above range as detergents. Thus, optimizing the amounts of surfactants to achieve the optimum cleansing effect would have been within the scope of a skilled artisan.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S. Channavajjala whose telephone number is 703-308-2438. The examiner can normally be reached on 7.30 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on 703-308-2927. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7924 for regular communications and 703-308-7924 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.



Lakshmi S. Channavajjala
Examiner
Art Unit 1615
May 13, 2002



THURMAN K. PAGE
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